

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A wavelength division multiplexing and optical transmission apparatus comprising:

a plurality of optical transmitting units for modulating a plurality of laser signals having inherent wavelengths with a plurality of data signals and outputting a plurality of modulated optical signals;

optical amplifying means with non-input and for outputting an amplified spontaneous emission light signal;

band pass filtering means for band pass filtering the output of ~~setting both an occupied wavelength band of the modulated optical signals output by the optical transmitting units and a neighboring wavelength band of the occupied wavelength band as a filtering wavelength band and band filtering the amplified spontaneous emission light signal output by the optical amplifying means and outputting a non-modulated spectrum slice optical signal;~~ and

optical multiplexing means for multiplexing the non-modulated spectrum slice optical signal as a dummy signal of an optical signal to be added in the future ~~output by the band pass filtering means with the modulated optical signals output by the optical transmitting units and transmitting a multiplexed optical signal.~~

Claim 2 (Previously Presented): A wavelength division multiplexing and optical transmission apparatus according to claim 1, wherein

the optical amplifying means comprises a pair of optical amplifiers which each have a signal input terminal terminated at no-reflection, and

the band pass filtering means comprises optical band pass filters for setting both the occupied wavelength band of the modulated optical signals output by the optical transmitting

units and the neighboring wavelength band of the occupied wavelength band as the filtering wavelength band, filtering amplified spontaneous emission light signals output by the optical amplifiers and outputting non-modulated spectrum slice optical signals.

Claim 3 (Original): A wavelength division multiplexing and optical transmission apparatus according to claim 1, wherein

the optical amplifying means comprises a single optical amplifier which has a signal input terminal terminated at no reflection, and

the band pass filtering means comprises a light dividing element for dividing the amplified spontaneous emission light signal output by the optical amplifier into a plurality of amplified spontaneous emission light signals, and a plurality of optical band pass filters, connected to a plurality of divided output terminals of the light dividing element respectively, for outputting the non-modulated spectrum slice optical signal.

Claim 4 (Original): A wavelength division multiplexing and optical transmission apparatus according to claim 1, wherein

the optical amplifying means comprises a single optical amplifier which has a signal input terminal terminated at no reflection, and

the band pass filtering means comprises

a light dividing element for dividing the amplified spontaneous emission light signal output by the optical amplifier into a plurality of amplified spontaneous emission light signals,

a plurality of optical band pass filters connected to a plurality of divided output terminals of the light dividing element respectively,

an optical multiplexer for multiplexing two or more outputs of the optical band pass filters with each other and outputting the non-modulated spectrum slice optical signal, and

an optical amplifier for amplifying an output of the optical multiplexer while controlling a power of the output to a constant value.

Claim 5 (Original): A wavelength division multiplexing and optical transmission apparatus according to claim 1, wherein the optical amplifying means comprises

an optical amplifier which has a signal input terminal terminated at no reflection, and a plurality of pumping laser signal sources connected to the optical amplifier redundantly.

Claim 6 (Original): A wavelength division multiplexing and optical transmission apparatus according to claim 1, wherein the band pass filtering means comprises a plurality of optical band pass filters connected in cascade.

Claim 7 (Currently Amended): A method for transmitting a wavelength division multiplexed optical transmission, comprising:

modulating a plurality of laser signals having inherent wavelengths with a plurality of data signals and outputting a plurality of modulated optical signals;

amplifying a spontaneous emission light signal with non-input and outputting an amplified spontaneous emission light signal;

~~setting an occupied wavelength band of the modulated optical signals;~~

~~setting a neighboring wavelength band of the occupied wavelength band as a filtering wavelength band;~~

band pass filtering the amplified spontaneous emission light signal;
outputting a non-modulated spectrum slice optical signal;
multiplexing the non-modulated spectrum slice optical signal as a dummy signal of an optical signal to be added in the future~~output~~ with the modulated optical signals; and
transmitting a multiplexed optical signal.

Claim 8 (Previously Presented): The method of claim 7, wherein said step of amplifying comprises:

amplifying with a pair of optical amplifiers each having a signal input terminal terminated at no-reflection.

Claim 9 (Previously Presented): The method of claim 7, wherein said step of amplifying comprises:

amplifying with a single optical amplifier which has a signal input terminal terminated at no reflection, said method further comprising
dividing the amplified spontaneous emission light signal output by the optical amplifier into a plurality of amplified spontaneous emission light signals.

Claim 10 (Previously Presented): The method of claim 7, wherein said step of amplifying comprises:

amplifying with a single optical amplifier which has a signal input terminal terminated at no reflection, said method further comprising
dividing the amplified spontaneous emission light signal output by the optical amplifier into a plurality of amplified spontaneous emission light signals,

multiplexing two or more outputs with each other and outputting the non-modulated spectrum slice optical signal, and

amplifying an output while controlling a power of the output to a constant value.

Claim 11 (Previously Presented): The method of claim 7, further comprising:
pumping a plurality of laser signal sources connected to an optical amplifier
redundantly.

Claim 12 (Previously Presented): The method of claim 7, wherein said step of band pass filtering comprises:

band pass filtering with a plurality of optical band pass filters connected in cascade.